

### **Remarks**

Favorable reconsideration of this application in the light of the following amendments and remarks is respectfully requested.

In response to the objection under 35 USC 112, claims 1, 10 and 18 have been amended to clarify the nature of the “two signal formats”. The two formats are defined as “pulses having different durations”. There is clear basis for this definition from the text at page 6, lines 16 –24.

This amendment is provided to address the objection to the claims as being indefinite. The previous response already explained this interpretation of the different signal formats *“Claims 1 and 10 have been amended to require that each portion of the interrogation signal “has two possible signal formats” (for example short or long, as shown in Figure 3) ...”*. Signal portions of a first duration or an extended duration were already defined in the previous version of claim 18.

As before, the independent claims require the dependency of the format of the interrogation signal portion on the tag responses. Thus, the length of the interrogation pulse varies in dependence on the responses received, with two possible pulse lengths. These two possible interrogation pulse lengths are the MW-0 modulation window and the MW-1 modulation window shown in Figure 2.

### **Comments on Response to Arguments**

In the Final Office Action, in the section “Response to Arguments”, the Examiner maintains that Denne discloses different signal formats, in the form of a modulated or non-modulated interrogating signal.

There is certainly no disclosure in Denne of different signal formats in the form of pulses of different duration.

The amendment to the independent claims thus provides a clear distinction over Denne as well as addressing the 35 USC 112 objection.

**Claim rejections under 35 USC 103(a)**

Claims 1, 4-6, 8-17 and 23 stand rejected under 35 USC 103 (a) as unpatentable over Denne et al. (US 4 691 202, "Denne") in view of Dodd (US 5 339 073, "Dodd") and further in view of Walter et al. (US 5 856 788, "Walter"). Claims 2-3 stand rejected under 35 USC 103 (a) as unpatentable over Denne in view of Dodd and Walter and further in view of Wood, Jr. (US 6 466 771, "Wood"). Claim 7 stands rejected under 35 USC 103 (a) as unpatentable over Denne in view of Dodd and Walter and further in view of Pidwerbetsky et al. (US 6 046 683, "Pidwerbetsky"). Claims 18-20 and 22 stand rejected under 35 USC 103 (a) as unpatentable over Dodd in view of Walter.

The arguments previously presented in response to the Office Action mailed 16 July 2004 apply even more clearly to the amended claims, and these arguments are maintained.

None of the prior art relied upon uses interrogation signals of two different durations, in dependence on the responses received.

As mentioned above, claim 18, which was rejected in the Final Office Action under USC 103 (a) as being unpatentable over Dodd in view of Walter, already requires signal portions of a first duration or an extended duration.

Dodd does disclose a system in which interrogation is performed on the basis of bits or groups of bits. The Examiner recognises that Dodd fails to teach deactivating each tag when not having the given value of the identification word. Instead, a progressively longer interrogation word is sent

out, and a large number of progressively more complicated interrogation signals are required before a single tag can be identified.

Walter discloses bitwise interrogation of an identification number of tags in a field of the interrogating device. Each tag has an "awake" and a "sleep" state, and these are used to control whether or not the tag responds to interrogation messages. Each tag also has an "isolated" and a "not isolated" state, and these are used to indicate whether or not the tag has already been interrogated (column 4 lines 14-42).

The Examiner argues that Walter discloses "an extended communication signal portion", but no mention of this can be found in the passage referred to by the Examiner (col. 4 lines 27-37). Walter simply does not disclose an interrogation signal pulse which varies in length between two possible values in dependence on the responses received. There is no disclosure in this passage of different formats of interrogation signal portion. Instead, each bit is interrogated in turn with a single type of interrogation signal, and the replies are processed in order to determine whether or not some tags need to be placed into the SLEEP state, using further instructions.

Claim 18 has been amended in a similar manner to claims 1 and 10 to make absolutely clear the feature of two possible interrogation signal pulse lengths.

As previously presented, the invention provides a system which enables individual tags to be identified with one interrogation signal, and which allows the tags to change state in response to the interrogation signal itself, thereby simplifying the procedure for placing tags into a quiescent mode.

The system of the invention enables very high efficiency of the interrogation procedure. Once a response is received to the shorter interrogation signal portion, the portion can end (without converting to the longer duration pulse), and the interrogation signal can proceed to

interrogation of the next bit. This provides an efficient and high speed identification of individual tags.

There is no disclosure of this adaptive nature of the duration of the interrogation signal portions in any of the prior art relied upon.

The above arguments are limited to the independent claims, and detailed arguments are not presented in respect of the dependent claims. However, the arguments of the Examiner should not be taken to be accepted.

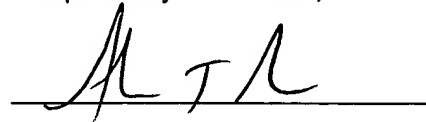
In view of the arguments and amendments above, we submit that this application is in order for allowance. Such action is therefore solicited.

It is believed that a one month extension of time is required for this matter. Applicant hereby petitions for same and a check for \$910.00 is attached to cover the \$120.00 extension fee and the \$790.00 RCE fee. Applicant requests that any additional fee required for timely consideration of this application be charged to Deposit Account No. 19-4972.

If the Examiner has any questions as to the allowability of the currently pending claims or if there are any defects which need to be corrected, the Examiner is invited to speak to the Applicant's counsel at the telephone number given below.

DATE: June 1, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A J S', is written over a horizontal line.

Alexander J. Smolenski, Jr.  
Registration No. 47,953  
Attorney for Applicant

Bromberg & Sunstein LLP  
125 Summer Street  
Boston, MA 02110-1618  
(617) 443-9292  
02497/00102 390085.1